



GEOMETRY SEMINAR

On a Conjecture of Salamanca-Riba and Vogan for $U(p,q)$

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Abstract

A main unsolved problem in representation theory of real reductive Lie groups G is the classification of all irreducible, unitarizable (g,K) -modules. In their 1998 Annals paper, Salamanca-Riba and Vogan suggested that one can reduce the classification problem to studying irreducible (g,K) -modules with unitarily small lowest K -types. However, the validity of their reduction argument is based on an unproved conjecture on the infinitesimal character of such (g,K) -modules.

In this talk, we will sketch a proof of their conjecture for $G = U(p,q)$. We expect that the proof can be generalized to any reductive groups.

Date: January 18, 2023 (Wednesday)

Time: 3:00 - 4:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

All are welcome